

# **The economic consequences of taxation-related policy changes: empirical evidence from listed Australian companies**

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## **CERTIFICATE OF ORIGINAL AUTHORSHIP**

I, Samuel Sherry, declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Accounting Discipline Group at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

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## **ABSTRACT**

Prior research has documented the difficulty faced by small, early-stage R&D companies in financing their investments, due to the adverse selection problem that results from asymmetric information between investors and managers. Further, because these companies are generally cash constrained, they frequently make use of stock options to attract and retain employees, as the incentive effects of stock options are viewed as being more suited to firms undertaking risky projects with the possibility of large payoffs should they succeed. This thesis examines these issues in the context of two recent taxation-related policy changes in Australia. First, the 2011 reform of the R&D Tax Incentive (“R&DTI”), which allowed small, R&D-performing firms in a tax loss position to exchange a portion of their losses for a cash refund, and second, an unexpected change to the taxation of employee share schemes (“ESS”) in 2009, which shifted the taxing point of employee stock options from exercise to vesting. Examining a sample of 322 ASX-listed mining exploration entities (“MEEs”) that received R&D tax refunds between 2008 and 2015, this thesis finds that the number of firms accessing the R&DTI increased significantly after 2011, as did the average refund received. In a sample of 314 ASX-listed companies that adopted employee option plans between 2006 and 2017, this thesis also finds that the popularity of employee option plans declined after 2009. Of those companies that continued to grant options to employees after 2009, the value of options granted to employees decreased significantly, reducing the potential tax liability faced by employees on vesting. In addition, there is also evidence of a decline in stock option expense as a proportion of directors’ total remuneration after 2009. This thesis also finds weak evidence of a negative market reaction to the announcement of the 2009 changes. The findings of this thesis shed new light on the financing decisions and compensation arrangements of early-stage R&D-performing firms.

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## LIST OF ABBREVIATIONS AND ACRONYMS

|        |  |
|--------|--|
| AASB   | Australian Accounting Standards Board                  |
| AAT    | Administrative Appeals Tribunal                        |
| ABS    | Australian Bureau of Statistics                        |
| AGM    | Annual General Meeting                                 |
| ASC    | Alternative Simplified Credit                          |
| ASX    | Australian Stock Exchange                              |
| ATO    | Australian Taxation Office                             |
| AUD    | Australian dollars                                     |
| BERD   | Business expenditure on research and development       |
| BHAR   | Buy-and-hold abnormal return                           |
| CAR    | Cumulative Abnormal Return                             |
| CGT    | Capital Gains Tax                                      |
| CP     | Competent Person                                       |
| CRD    | SIRCA Core Research Data                               |
| E&E    | Exploration and Evaluation                             |
| EOD    | ASX End of Day Database                                |
| ESO    | Executive Stock Option                                 |
| EESO   | Employee Stock Option                                  |
| ESOP   | Employee Stock Ownership Plan                          |
| ESS    | Employee Share Scheme                                  |
| FASB   | Financial Accounting Standards Board                   |
| GAAP   | Generally Accepted Accounting Principles               |
| GDP    | Gross Domestic Product                                 |
| GICS   | Global Industry Classification Standard                |
| IFRS   | International Financial Reporting Standards            |
| IPO    | Initial Public Offering                                |
| ISO    | Incentive stock option                                 |
| ITAA36 | Income Tax Assessment Act 1936                         |
| ITAA97 | Income Tax Assessment Act 1997                         |
| JORC   | Joint Ore Reserves Committee                           |
| LP     | Limited Partnership                                    |
| MEE    | Mining Exploration Entity                              |
| MTR    | Marginal Tax Rate                                      |
| NISA   | National Innovation and Science Agenda                 |
| NPV    | Net Present Value                                      |
| NQO    | Non-qualifying option                                  |
| NRG    | R&D National Reference Group                           |
| OECD   | Organisation for Economic Co-operation and Development |
| PFS    | Pre-feasibility study                                  |
| R&D    | Research & Development                                 |
| RDFO   | R&D Financing Organization                             |
| R&DTI  | R&D Tax Incentive                                      |

|       |   |
|-------|---|
| RSPT  | Resources Super Profits Tax                         |
| SEO   | Seasoned Equity Offering                            |
| SIRCA | Securities Industry Research Centre of Asia-Pacific |
| SPP   | Share Purchase Plan                                 |
| SPPR  | Australia Share Price & Price Relatives database    |
| TRA69 | Tax Reform Act of 1969                              |
| TSR   | Total Shareholder Return                            |
| UK    | United Kingdom                                      |
| US    | United States                                       |
| USD   | United States dollars                               |